

Ohio Agricultural Experiment Station.

CIRCULAR 77

CO-OPERATIVE POTATO EXPERIMENTS FOR 1908.

W. J. GREEN. Horticulturist and L. H. GODDARD, Experimentalist

DO YOU GROW POTATOES?

If so—

- 1st. Are you growing the best variety?
- 2nd. Are you improving that variety?
- 3rd. Are you planting the proper distance?
- 4th. Are you using the best fertilizer?
- 5th. Does it pay to spray your potatoes?

Because of the varying soil and weather conditions of different sections, varieties of potatoes, methods of culture and fertilizers which will do well in one part of Ohio, may not do well in another. Likewise spraying may pay in some sections, while it may not in others. Hence all of these problems are local and the solutions cannot be fully worked out on the Experiment Station farm. Hints may come from other sources but the final solution must be made by each individual on his own farm.

It is to assist the farmers of the state in solving these problems for their sections and their own farms, that the Experiment Station has planned the following tests and is willing to supply material for same as long as it lasts:

1 **Small plot variety test.** In this test a sufficient quantity of seed potatoes of each of four or more varieties to plant duplicate rows two rods long will be supplied. These are to be grown side by side and under the same conditions with one or more local varieties which are known to do well in that locality, and which may be better than any we can send you.

2 **Large plot variety test.** Sufficient seed to plant one-tenth acre each of four varieties will be supplied to a limited number of experienced experimenters. Wherever possible a representative of the Station will visit the experimenter and make arrangements before the seed is sent.

3 **Potato breeding.** While some varieties yield, resist blight, etc., much better than others, there are often greater differences between individual plants of the same variety than between different varieties. Thus the importance of improving varieties by selection. Full instructions for carrying on this work will be supplied upon request.

4 **Thick and thin planting.** The distance apart at which potatoes should be planted to obtain the maximum yield varies with the variety, soil and weather conditions. Full instructions for carrying on a test to determine the best distance of planting will be supplied as well as a rain gage to determine with accuracy the rainfall on the test plot.

5 **Fertilizer test.** Tests to determine the best kinds and amounts of fertilizer to use on any given soil should be continued for several years to be conclusive. Fertilizer for a limited number of such tests, of one-tenth acre or more, will be supplied to persons of experience. It will be necessary that a representative of the Station visit the plot to arrange the experiment.

6 **Spraying test.** In some parts of the state it pays to spray potatoes for blight but whether it will pay in all sections is doubtful. For the purpose of determining this, blanks on which to keep an accurate record of sprays, labor of applying same, and yields of sprayed and unsprayed areas will be supplied to all who wish to report. In some cases a limited amount of spray material will be supplied.

7 **County farms.** If the soil of either the County Infirmary or Children's Home farm is typical of any large area of the county and other conditions are favorable, any one of these tests can be taken up there with very great advantage. In case such a test is carried out the Station will assist the county in holding a field meeting to which the potato growers will be invited to study the test and to discuss potato work in general.

We enclose herewith instructions for making the small plot test, and the list of varieties available for variety tests. Persons desiring to make this test should fill out the application blank that accompanies the instructions. Instructions for making any of the tests mentioned will be mailed to any person who fills out and mails to this office the application attached to this sheet.

Address, Experimentalist, O. A. E. S., Wooster, Ohio.

APPLICATION
Co-operative Potato Work—1908.

Gentlemen:—

I have read carefully your circular regarding Co-operative Potato Experiments in 1908 and would like further information regarding the following tests:
1. Small plot variety test. 2. Large plot variety test. 3. Potato breeding,
4. Thickness of planting. 5. Fertilizers. 6. Potato spraying. (*Underscore those you desire*).

I ownacres of land; rent.....acres; manageacres;
devote on an average.....acres annually to the potato crop and usually
plant about the.....week of

(*In case you wish to take up Nos. 2, 5, or 6, fill out the following*)

I shall be pleased to meet your representative at.....
Railway or traction station

which ismiles..... of where I live, or at
direction

which ismiles.of where I live, or at
direction

.....

I shall wish about.....days notice and am connected with

.....telephone exchange at.....
Citizens or Bell

My farm is located in.....Township.....County

My express office is.....Freight office.....

Signed.....P. O.....

Date of mailing1908.

Mail to ~~Experimentalist~~ O. A. E. S., Wooster, Ohio.

This page intentionally blank.